

ABSTRACT OF THE DISCLOSURE

A method and apparatus for controlling a substrate temperature during an electroless deposition process. The apparatus includes a deposition cell configured to support a substrate at a position above a fluid distribution member. A heated fluid is dispensed from the fluid distribution member and contacts the backside of the substrate, thus heating the substrate. The fluid is dispensed from apertures configured to maintain a constant temperature across the substrate surface. The method includes flowing a heated fluid through a diffusion member against a backside of the substrate in a configuration that is configured to generate a constant processing temperature across the front side or processing side of the substrate.